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1-14. (Cancelled)

15. (Currently Amended) A method for the selective catalytic reduction of nitrogen oxides, comprising: introducing a reducing agent into a flue gas containing nitrogen oxides; then passing the flue gas through at least a first layer of nitrogen oxide reducing catalyst where an amount of nitrogen oxides in said flue gas is reduced; then passing the flue gas through a heat exchanger that removes heat from the flue gas and also mixes the flue gas and the reducing agent; and then passing the flue gas through at least one additional layer of nitrogen oxide reducing catalyst where an additional amount of nitrogen oxides in the flue gas is reduced;

wherein said at least one heat exchanger is at least one interstage heat exchanger, that lowers flue gas temperature, and that acts as a mixing body to lower the standard deviation of the NH_3/NO ratio entering catalyst layers after the-first catalyst layer, thus providing a higher amount of consumption of both ammonia and NOx in a reactor than would be achieved in the absence of the at least one interstage heat exchanger; and

wherein the at least one interstage heat exchanger transfers 50-175°F. of heat; and comprises utilizing a one-piece heat exchange element in a Ljungstrom-type heat exchanger, and wherein ammonium sulfates and ammonium bisulfates are cleaned from air heater surfaces with sootblowers located at both the inlet and outlet of the air heater.

16-17. (Cancelled)

18. (Original) The method of claim 15 wherein the reducing medium is ammonia and the NH3/NO ratio is between 0.90 and 0.98.

19. (Original) The method of claim 18 wherein the NH. $_3$/NO ratio is about 1:1.

20. (Original) The method of claim 15, further comprising before passing the flue gas through the at least one additional catalyst layer, passing the flue gas through a separate static mixing device to mix reducing agent and NO, further mixing the partially reacted NH.sub.3 and NO.

21. (Original) The method of claim 15, further comprising passing the flue gas through at least one additional layer of a special-purpose catalyst for oxidation of mercury, said special-purpose catalyst not representing a proportional change in concentration of the ingredients of a conventional SCR catalyst, said special-purpose catalyst having a formulation preferential for Hg oxidation

22. (Original) The method of claim 15, further comprising, passing a portion of the flue gas through a combustion air bypass duct controlled by a modulating damper to direct combustion air leaving a compressed, one stage air

heater directly to a boiler thus bypassing the interstage heater after the first catalyst layer, while retaining a minimum amount of air in the interstage heater exchanger avoiding overheating of tubes, preserving gas temperature in the first catalyst layer above a minimum required to avoid ABS deposition.

23-25 (Cancelled)

26. (New) A method for the selective catalytic reduction of nitrogen oxides, comprising: introducing a reducing agent into a flue gas containing nitrogen oxides; then passing the flue gas through at least a first layer of nitrogen oxide reducing catalyst where an amount of nitrogen oxides in said flue gas is reduced; then passing the flue gas through a heat exchanger that removes heat from the flue gas and also mixes the flue gas and the reducing agent; and then passing the flue gas through at least one additional layer of nitrogen oxide reducing catalyst where an additional amount of nitrogen oxides in the flue gas is reduced;

wherein said at least one heat exchanger is at least one interstage heat exchanger, that lowers flue gas temperature, and that acts as a mixing body to lower the standard deviation of the NH_3/NO ratio entering catalyst layers after the-first catalyst layer, thus providing a higher amount of consumption of both ammonia and NOx in a reactor than would be achieved in the absence of the at least one interstage heat exchanger; and

wherein the at least one interstage heat exchanger transfers 50-175°F. of heat; and comprises utilizing a one-piece heat exchange element in a

Ljungstrom-type heat exchanger, and wherein ammonium sulfates and ammonium bisulfates are cleaned from air heater surfaces.